US ERA ARCHIVE DOCUMENT



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# A Thrill Packed Introduction To State Public Utility Commissions

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#### **NARUC & Grants & Research**

- NARUC members are the State PUCs
- G&R Dept. addresses research and facilitates dialogue on key questions facing Commissions
- 17 current projects covering infrastructure, environment, regulatory design, finance, security and other issues for the gas, water, electric, telecom sectors
- Demand-side & Clean Energy plays some role in about 1/2 of our projects

Federal Funders: EPA, Dept. of Energy, Dept. of Homeland Security

Partnerships with FCC, NCS, FERC, private sector, non-governmentals



#### **Disclaimer**

- These are opinions, not NARUC policy, nor policy of its members.
- There are 50 states + DC, with over 200 Commissioners. So there are at least 201 perspectives on everything, so I've had to be general.
- Everything will apply to some state, but there are exceptions to everything in here in some state too.



## What is a Public Utility Commission?

- A quasi-judicial panel that sets the rates, terms, and conditions for the provision of essential services in the regulated utility sectors
  - (electric, gas, water, telephone, and sometimes transportation, ports, banks, petroleum, etc etc.)
- A commission has 3-7 members, staggered terms, bipartisan representation, appointed by Governors, Legislatures, or directly elected
- Focus on transparency, accountability, public participation, due process



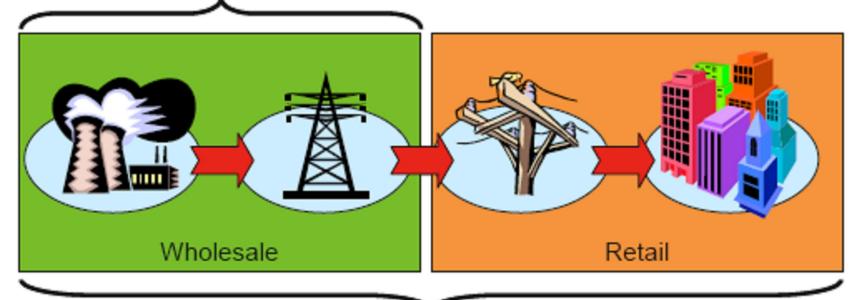
### **IOUs, Coops, and Munis**

	Investor- Owned	Publicly Owned	Cooperatives	Total
Number of Organizations	220	2,000	930	3,150
Number of Total Customers	102 m	20 m	17 m	140 m
Size (median number of customers)	400,000	2,000	12,500	
Customers, % of total	73%	15%	12%	
Revenues, % of total	76%	14%	10%	
kWh sales, % of total	74%	16%	10%	



### **Federal & State Jurisdiction**

#### Federal Jurisdiction



Source: ISO-NE

State Jurisdiction – Facility Siting, Distribution, Retail Rates

Who needs a mnemonic? FERC jurisdiction is over "sale for resale"\*

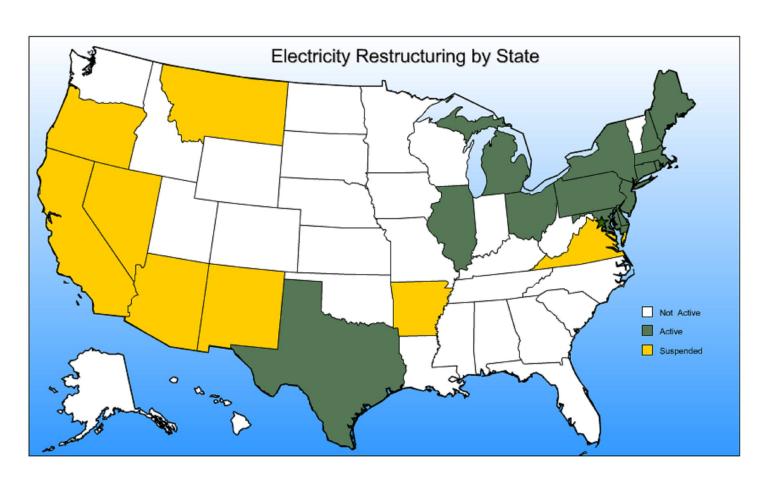
\* Who doesn't know what a mnemonic is?

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# **Status of Electricity Restructuring**



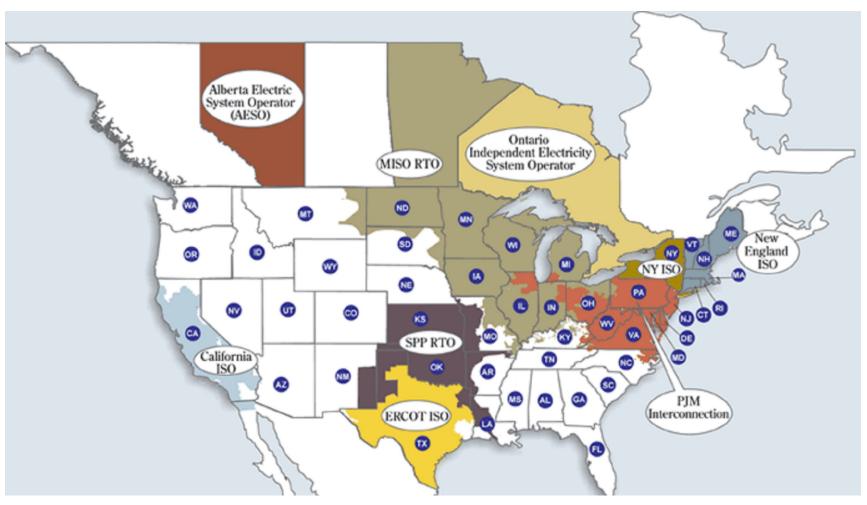
Source: Energy Information Administration, status as of April 2007



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#### **RTOs**





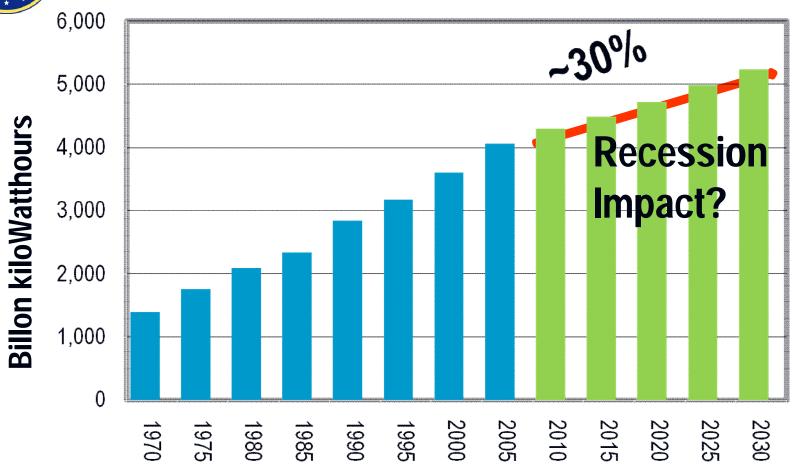
## **Commission Activities in Electricity**

- Set the rates, terms, and conditions of monopoly utility services
- Ensure reliable, affordable, clean electricity
- Specific activities:
  - Planning
  - Siting
  - Cost allocation and cost recovery
  - Other stuff

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### Reliable:



Sources: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 2006* and *Annual Energy Outlook 2008 Early Release* 

<sup>\*</sup>Electricity demand projections based on expected growth between 2006-2030

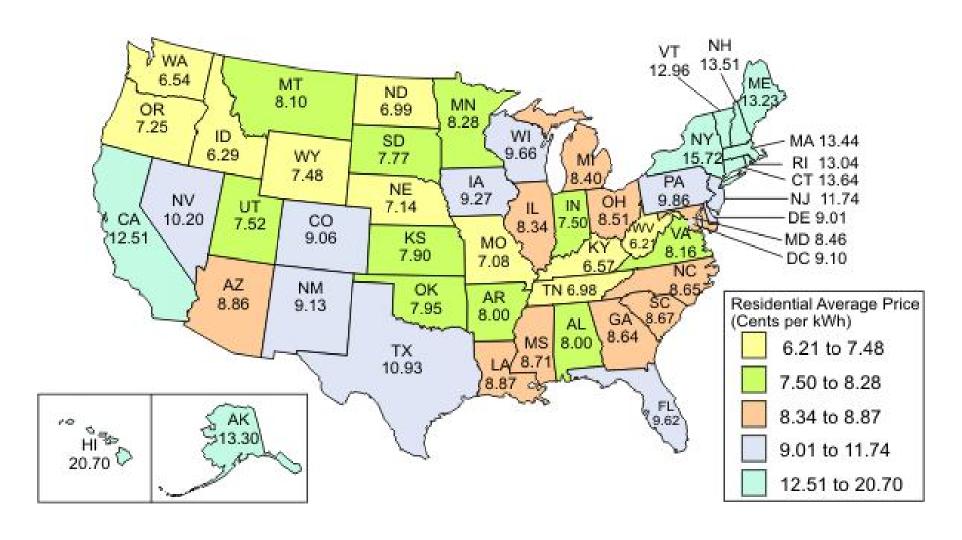


#### Reliability

- Standard setting
  - ■Technical: NERC
  - Resource adequacy
  - ■Safety & security
- Review and approve plans
- Regular updates (annual or otherwise)
- Penalties for non performance; incentives for high achievement



### Affordable:





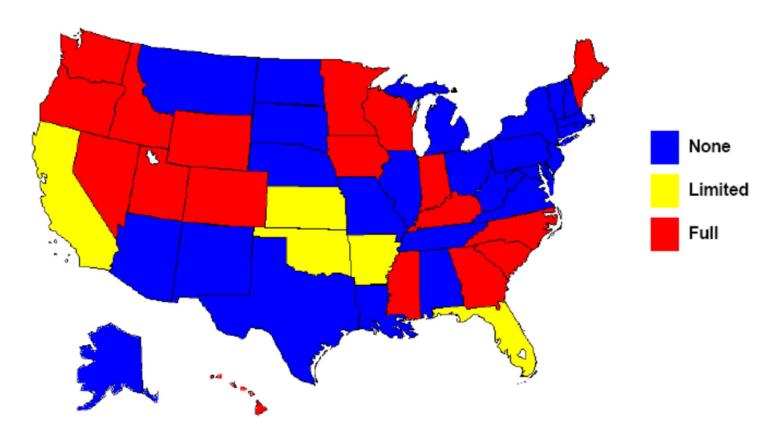


Per Eric Holdsworth, EE



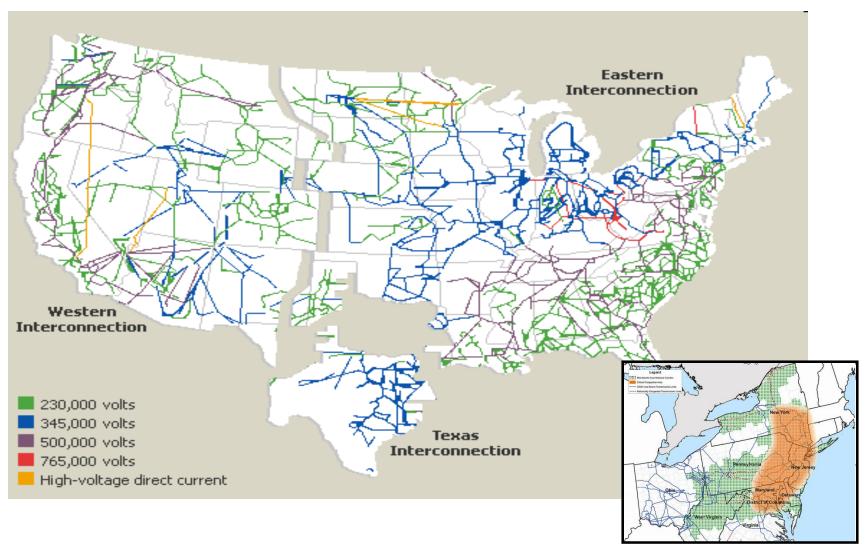
# **Resource Planning**

- IRP evaluates scenarios and chooses resource mix that has best reliability, affordability, and other desired attributes
- Even without IRP, portfolio management is gaining ground





# **Transmission Planning**



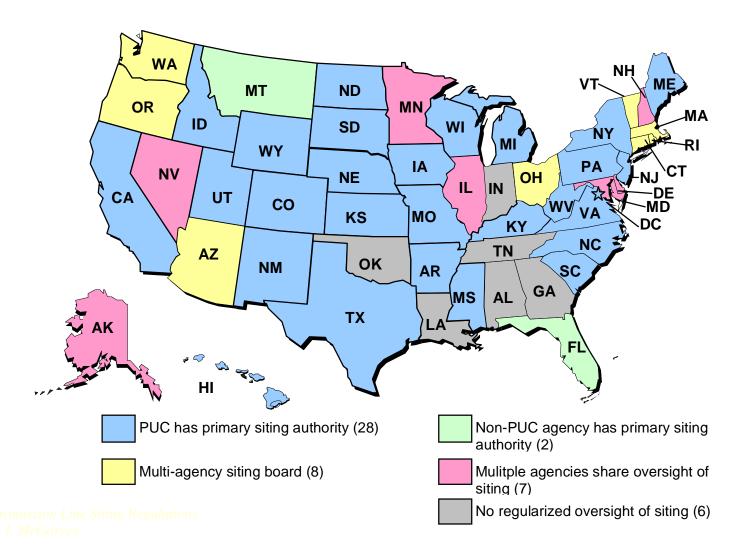


### Infrastructure Siting

- Several Commissions have specific Siting Boards
- All commissions have some role in siting, even if indirect
  - Generation
  - Transmission
  - Inside the "city gates" gas infrastructure
  - Demand-side programs
- Local role in some states
- Quasi-judicial proceedings
  - Evidentiary hearings, site visits, conditional approvals
- Coordination among states
- Backstop interstate siting authority



# **Transmission Siting Authority by State**





### **Cost recovery**

- The regulatory compact is that a utility will have a monopoly and will have a hard time going broke because the rates are set to cover cost of service and revenue requirement
- A description of a rate case
- Warren Buffet: "This should be a good business to be in, but not a Great business."
- Cost recovery as a balance between regulatory certainty and a risk-based incentive for innovation
- Efficiency and decoupling and revenue, oh my!



### **Administer other programs**

- Gas
- Managing RPS
- Managing efficiency programs
- Managing climate- and enviro-related programs (RGGI, loading orders, etc.)
- Overseeing public benefits funds
- Emergency preparedness & interdependencies
- Coordinate with other agencies









#### Renewable Portfolio Standards

www.dsireusa.org / April 2010 ME: 30% x 2000 VT: (1) RE meets any increase WA: 15% x 2020<sup>3</sup> New RE: 10% x 2017 in retail sales x 2012: MN: 25% x 2025 MT: 15% x 2015 (2) 20% RE & CHP x 2017 NH: 23.8% x 2025 (Xcel: 30% x 2020) MI: 10% + 1,100 MW MA: 22.1% x 2020 OR: 25% x 2025 (large utilities)\* ND: 10% x 2015 New RE: 15% x 2020 x 2015\* 5% - 10% x 2025 (smaller utilities) (+1% annually thereafter) SD: 10% x 2015 WI: Varies by utility; NY: 29% x 2015 RI: 16% x 2020 10% x 2015 statewide CT: 23% x 2020 NV: 25% x 2025\* IA: 105 MW OH: 25% x 2025 PA: ~18% x 2021† CO: 30% by 2020 (IOUs) 10% by 2020 (co-ops & large munis)\* WV: 25% x 2025\*† NJ: 22.5% x 2021 IL: 25% x 2025 CA: 33% x 2020 UT: 20% by 2025\* KS: 20% x 2020 VA: 15% x 2025 MD: 20% x 2022 MO: 15% x 2021 DE: 20% x 2020\* AZ: 15% x 2025 NC: 12.5% x 2021 (IOUs) DC: 20% x 2020 10% x 2018 (co-ops & munis) NM: 20% x 2020 (IOUs) 10% x 2020 (co-ops) TX: 5.880 MW x 2015

State renewable portfolio standard

HI: 40% x 2030

- State renewable portfolio goal
- Solar water heating eligible

Minimum solar or customer-sited requirement

(

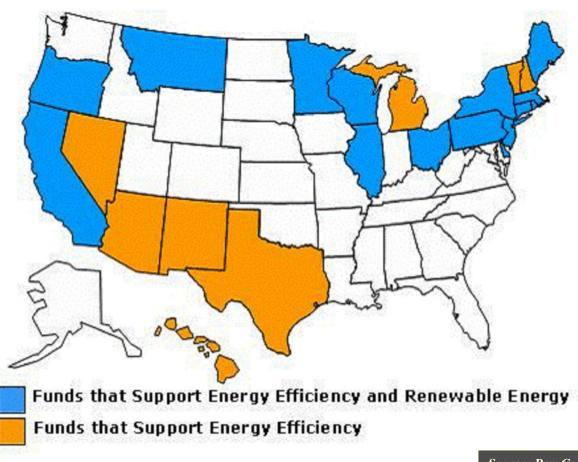
- Extra credit for solar or customer-sited renewables
- † Includes non-renewable alternative resources

29 states + DC have an RPS

(6 states have goals)



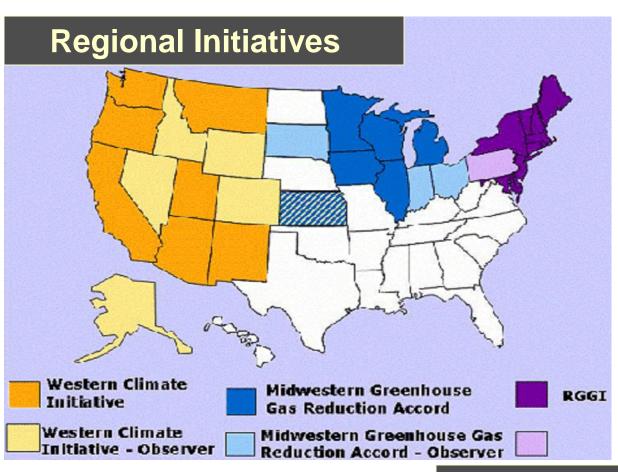
# States with System Benefits Funds



Source: Pew Center on Global Climate Change



## **Climate Policy by State**



Source: Pew Center on Global Climate Change



## Challenging Reliable, Affordable, Clean

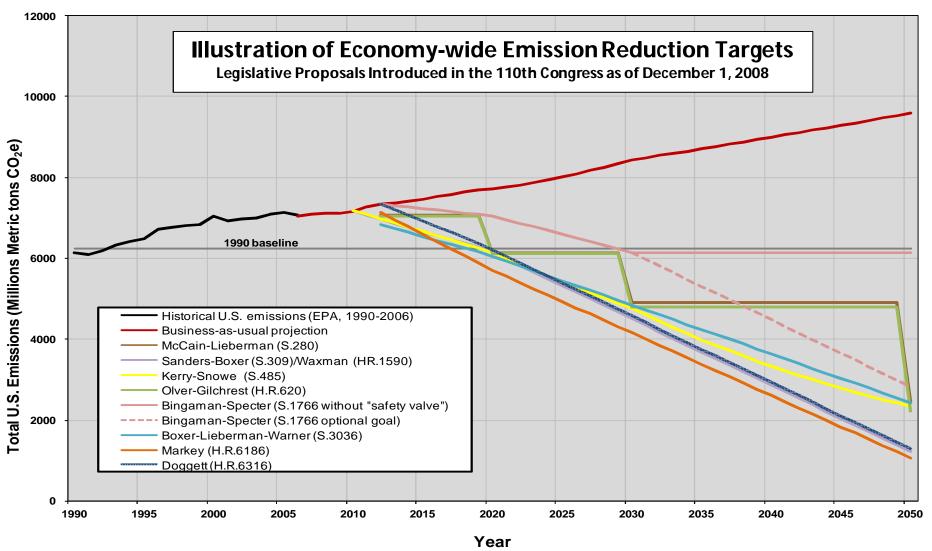
- Regulators care about resource adequacy first and foremost, demand is growing and new supply is tough to get.
- The "golden era" of declining prices is probably over, and some big bills are coming due.
- Climate seen as a revolution-sized challenge facing the sector. Is it a trumping constraint or a third, equal factor in review?

"We cannot solve the most serious problems using the same thinking that created them."

- Albert Einstein



# Climate Legislation





### The Many Charms Of Efficiency

Costs less than a power plant!

Pays you back – now with local benefits!

**NIMBY-proof!** 

**Terrorist-proof!** 

**Hurricane-proof!** 

**Hugo Chavez-proof!** 

Easy to install: no wires or pipes!

100% NOx and SOx-free!

Legal everywhere, and Yucca-free!

Bird / Bat-friendly!

**Good-looking!** 

**More Popular Every Day!** 





#### **Conclusions**

- State regulators play a broad role with wideranging responsibilities
- Regulatory policy has been an important driver for choices made about the electric system we have today
- The electricity system is changing and regulatory policy may need to change with it
- All supply choices are important to consider
- Energy efficiency appears to be the "no regrets" choice no matter what supply choices we make



# I Will Now Confront Your Most Challenging Questions!



Or! Later if you prefer!

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